

I CLAIM:

1. A method for identifying metastatic potential of a prostate cancer cell, said method comprising the step of:

5 detecting expression of a MUC18 coding sequence in a prostate cancer cell for which an identification of metastatic potential is sought relative to expression of a MUC18 coding sequence in a normal prostate cell, wherein a higher level of expression of the MUC18 coding sequence is positively correlated with metastatic potential of a prostate cancer cell,

whereby metastatic potential of a prostate cancer cell is deemed high when the level of expression of a MUC18 coding sequence is higher in said prostate cancer cell than in a normal prostate cell.

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2. The method of claim 1, wherein said prostate cancer cell is from a biopsy tissue sample from a patient for whom a prediction of metastasis of prostate cancer is sought.

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3. The method of claim 1, wherein expression of MUC18 coding sequence is determined by immunoassay.

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4. The method of claim 3, wherein expression of the MUC18 coding sequence is determined by immunoassay using antibody made in an experimental laboratory animal in response to a MUC 18 antigen.

5. The method of claim 4, wherein the MUC18 antigen is a middle portion of MUC18.

6. The method of claim 5, wherein said middle portion of MUC18 has an amino acid sequence as given in SEQ ID NO:2, amino acids 211-376.

7. The method of claim 1, wherein expression of a MUC18 coding sequence is determined by Northern hybridization.

8. The method of claim 7, wherein a probe used in Northern hybridization comprises at least 15 contiguous nucleotides of SEQ ID NO:1.

9. The method of claim 8, wherein a probe used in Northern hybridization comprises a nucleotide sequence as given in SEQ ID NO:6, SEQ ID NO:7, SEQ ID NO:9, or SEQ ID NO:10.

10. The method of claim 1, wherein said expression of a MUC18 coding sequence is determined by a reverse transcriptase-polymerase chain reaction.

11. The method of claim 10, wherein a primer used in the reverse-transcriptase polymerase chain reaction comprises a nucleotide sequence as given in SEQ ID NO:6, SEQ ID NO:7, SEQ ID NO:9 or SEQ ID NO:10.

12. The method of claim 1, wherein said prostate cancer cell is a cell line cell.

13. An immunoassay kit for diagnosing metastatic potential of a prostate cancer cell, said kit comprising an antibody made in response to immunization with an antigen consisting essentially of middle portion MUC18.

14. A nucleic acid vector comprising a nucleotide sequence encoding a middle portion MUC18 protein, said middle portion MUC18 protein consisting essentially of an amino acid sequence as given in SEQ ID NO:2, amino acids 211-376.

15. The nucleic acid vector of claim 14, wherein said vector comprises a nucleotide sequence encoding a middle portion MUC18 protein as given in SEQ ID NO:1, nucleotides 631-1128.

16. A recombinant host cell comprising the nucleic acid vector of claim 14.
17. A nucleic acid vector comprising a nucleotide sequence encoding a MUC18 protein, said MUC18 protein being characterized by an amino acid sequence as given in SEQ ID NO:2.
- 5 18. The nucleic acid vector of claim 17, wherein said nucleotide sequence encoding a MUC18 protein is as given in SEQ ID NO:1, nucleotides 1-1938.
19. A recombinant host cell comprising the nucleic acid vector of claim 17.

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